EXECUTIVE SUMMARY

California is blessed with spectacular resources along its entire 1,100 mile coast. The ocean serves as a source of food, recreation, and energy resources, and provides a critical transportation link between California and other states and nations. As California moves toward the 21st century, its expanding population, enhanced cultural diversity, and growing economic base will continue to place additional demands on the State's ocean and coastal resources, making management of these resources increasingly complex.

A broad and complicated set of laws, regulations, and specific designations have been developed over time to protect and manage these ocean resources, although such measures were developed without the assistance of a comprehensive approach. **California's Ocean Resources: An Agenda for the Future** ***helps provide this assistance; it describes California's ocean ecosystem, identifies the contribution of selected ocean-dependent industries to the California economy, summarizes the statutes and agency management roles that relate to ocean resource management, and identifies a mission and four goals for the State to pursue. The Agenda also analyzes nine major ocean resource management issues, offers specific recommendations for addressing these issues, and provides an approach for the Governor, the Legislature, government agencies, industry, and the public to use in improving the management of California's precious ocean and coastal resources.***

CALIFORNIA OCEAN RESOURCES MANAGEMENT ACT

The California Ocean Resources Management Act (CORMA; PRC Section 36000 et seq.) requires the Resources Agency to prepare a report regarding existing ocean resources management activities and impacts, and a plan to increase coordination and minimize duplication of ocean resources management activities. The 1991 amendments to the CORMA transferred responsibility for all nonstatutory marine and coastal resource management programs to the Secretary for Resources.

Prepared pursuant to the CORMA, this Agenda was developed in phases which included the final distribution of a workplan (April 1993) and a detailed summary and analysis of ocean management issues (September 1993). Six coastal workshops and a legislative oversight hearing were held in November 1993 to receive testimony and comments regarding the summary and analysis of issues. The Resources Agency received extensive data and information in written comments and extended the comment period into the first quarter of 1994 due to the high level of interest in the project. The draft Agenda was published in July 1995 and six more coastal workshops were held in August 1995 to receive verbal and written comments.

Substantial revisions have been made to the material presented in the July 1995 draft and incorporated in this final Agenda based on additional analyses. This final document is being submitted to the Governor and Legislature pursuant to the requirements of the CORMA.

CALIFORNIA'S OCEAN RESOURCES MANAGEMENT PROGRAM

The mission of the California Ocean Resources Management Program is:

> *To ensure comprehensive and coordinated management, conservation and enhancement of California's ocean resources for their intrinsic value and for the benefit of current and future generations.*

Four goals have been established to guide the California Ocean Resources Management Program in realizing this mission.

Goal 1: Stewardship. To assess, conserve, restore, and manage California's ocean resources and the ocean ecosystem.

For the purposes of this Agenda, four major resource zones are identified in California's ocean ecosystem which sustain California's ocean and coastal resources. There are at least nine major management issues which arise in sustaining these resources in both the short-term and long-term. Effective management requires development of a comprehensive inventory of resources, habitats, and other features that make up the ocean ecosystem.

Goal 2: Economic Sustainability. To encourage environmentally sound, sustainable, and economically beneficial ocean resource development activities.

Seven major ocean-dependent industries in California have been evaluated to determine their economic contribution to the State and regional economies. This information is critical for placing the economic uses of ocean resources in the proper context with regard to stewardship responsibilities.

Goal 3: Research, Education and Technology. To advance research, education programs, and technology developments to meet future needs and uses of the ocean.

A multitude of research initiatives, education programs, and new technology developments exist relating to California's ocean resources and ecosystem. However, there is a need for developing comprehensive inventories and conducting analyses of such initiatives, programs, and technologies to identify the State's most important priorities.

Goal 4: Jurisdiction and Ownership. To maximize California's interests within State Tidelands, the territorial sea, and the exclusive economic zone.

There are numerous local, State, and federal entities with ownership of, or jurisdiction over, ocean resources in California. A comprehensive management approach is needed to address cross-jurisdictional management issues affecting California's ocean and coastal waters.

These goals could be achieved through a mix of government, private sector, and public/private partnership arrangements, and in all cases, require cooperative efforts and understanding among the diverse group of stakeholders desiring to protect or use California’s ocean resources.

CONTEXT FOR OCEAN RESOURCE MANAGEMENT IN CALIFORNIA

To develop a context for ocean management, this Agenda summarizes the economic contribution key ocean-dependent industries make to the California economy, identifies the State and federal jurisdictions and agency responsibilities for managing the waters and resources along California's 1,100 mile coastline, and describes California's ocean ecosystem.

Economics of Seven Ocean-Dependent Industries

The California Research Bureau conducted an economic analysis of seven ocean-dependent industries in California and concluded that these industries contributed *$17.3 billion to the California economy in 1992, supporting over 370,000 jobs in California* (California Research Bureau 1993). The industries studied in

the analysis include commercial fishing, marine aquaculture, kelp harvesting, offshore oil and gas, mineral production, port activities, and coastal tourism and recreation. Of the $17.3 billion total, the Bureau attributes $9.9 billion to coastal tourism and recreation spending and $6.0 billion from sea ports and ship building. These findings are testimony to the concept that *ongoing efforts to manage California's ocean resources in a sustainable manner will provide long-term economic as well as environmental benefits.* The State must continue to pursue efficient and effective processes for addressing the protection of ocean resources, while also addressing the legitimate needs of ocean-dependent industries.

Ocean Jurisdiction and Management

The waters along and off the California coast include a complex array of local, State, federal, and international jurisdictions. These jurisdictions include State Tidelands and Submerged Lands (State Tidelands), the Outer Continental Shelf, the territorial sea, the contiguous zone, the exclusive economic zone, and high seas. State Tidelands are owned, managed and regulated by the State of California; however, the State's ability to control or benefit from the resources or uses beyond State Tidelands are frequently unclear under existing law and practice. Although California has been involved in issue-specific ocean management activities for over 100 years, it has been unable to establish a comprehensive ocean management regime. With the exception of the provisions in California's Coastal Management Program, most ocean planning, coordination, and research efforts continue to be pursued on a single-purpose basis. This analysis points to the need for a more comprehensive approach to planning and decision-making, and for new procedures to help reduce confusion, delay, or duplication in matters relating to ocean resource management.

California's Ocean Ecosystem

California's ocean ecosystem, and the habitats that make up this ecosystem, must be better understood and integrated into any management strategy the State adopts. For descriptive purposes, the habitats which make up California's ocean ecosystem have been grouped into four geographic zones: the inland watershed zone, the enclosed waters zone, the nearshore ocean zone, and the offshore ocean zone. These four zones are dynamic and interdependent, forming one of the biologically richest ecosystems in the world. Management of the ocean's resources must take into consideration this interdependence and recognize that impacts generated in one resource zone may ultimately affect resources in another zone.

OCEAN MANAGEMENT ISSUE ANALYSES AND RECOMMENDATIONS

This Agenda identifies nine ocean management issues that face the State of California now, or are likely to in the reasonably foreseeable future. Specific recommendations are made for addressing these issues, and are intended to help achieve the mission and goals of the Ocean Resources Management Program.

Three subchapters address natural processes and some uses which affect these processes:

- Habitats and Living Resources
- Water Quality
- Shoreline Erosion

The remaining six subchapters address specific issues which affect ocean resources or their management:

- Ports and Harbors
- Oil, Gas and Other Mineral Resource Extraction

- Vessel Traffic Safety
- Tourism and Recreation
- Education, Research and Technology
- Desalination - Producing Potable Water

Habitats and Living Resources

The waters off the Pacific coast are among the richest in biological diversity, or biodiversity, in United States coastal waters. California's living resources depend on the health of the entire ocean ecosystem to support thousands of flora and fauna species. This ecosystem includes habitats located within inland, enclosed, nearshore, and offshore waters. A variety of ocean and coastal industries, including fishing, marine aquaculture, biotechnology, tourism, and recreation, depend on the maintenance and enhancement of California's ocean and coastal habitats and living resources. These resources, and the economic base they support, will benefit substantially from the development of a comprehensive program to sustain California's ocean ecosystem into the 21st century and beyond.

Many State and federal agencies are responsible for implementing issue-specific (and sometimes single-purpose) provisions relating to ocean and coastal habitats and living marine resources. This issue-specific approach occurs because legislation is often produced incrementally to address immediate problems. The result is management efforts based on geography, species type, or impact source, rather than the development of broader policy objectives. However, issues concerning ocean and coastal species and the ecosystem that supports them do not necessarily conform to solutions addressed in this fashion. Therefore, more comprehensive approaches are needed.

Finding. Ocean resource management and policy-making is often hampered by insufficient information about habitat functions and values, species diversity, and other complex physical, biological, and chemical processes, and interactions which affect the ocean ecosystem. Understanding the natural and anthropogenic factors that affect ocean productivity and health, and their interrelationships, is essential to establishing sustainable ocean resource management policies and determining their effectiveness, both short-term and long-term. New information sharing and data consistency approaches being established by groups such as the California Biodiversity Council, Southern California Wetlands Working Group, Monterey Bay National Marine Sanctuary, and Santa Monica Bay Restoration Project will provide important models for ecosystem-based management of California's ocean ecosystem.

Recommendation A-1. ***Complete resource inventories within bays, estuaries, and coastal lagoons along the California coast, as well as within the waters offshore the California coastline, and make this data accessible through the California Environmental Resources Evaluation System (CERES).*** A key objective should be to work with federal agencies, including the Departments of Commerce, Interior, Transportation and Defense, to assist the State in developing this information. The proposed Ocean Resources Management Coordinating Council (see Chapter 6) should help identify information sources, prioritize these efforts, and determine the most important data and information for ocean resource management needs still missing in California.

Finding. California's ocean ecosystem supports a wide assemblage of ocean and coastal life that includes plants, invertebrates, fish, birds, and mammals. The health and productivity of this ecosystem is, and will continue to be, important to public health, species diversity, and ocean-dependent industries including the State's substantial tourism and recreation, and commercial and recreational fishing. Ecosystem management strategies are likely to be most effective in maintaining these important ocean and

coastal resources.

Recommendation A-2. ***Ecosystem management strategies and supporting research which demonstrate more effective and/or efficient approaches to resolving ocean management issues should be given financial priority for planning and implementation.*** These strategies should be developed in consultation with all interested parties under the guidance of the proposed Ocean Resources Management Coordinating Council, and in consultation with the California Biodiversity Council. Ecosystem strategies must include approaches that consider the interdependence of species and habitats located within California's four ocean resource zones, the multiple jurisdictions and stakeholders concerned with these resources, and the efficiency of program planning and implementation measures.

Finding. The array of California's ocean and coastal managed area designations is complex and often confusing, posing questions as to the effectiveness and enforceability of designations meant to safeguard the State's ocean and coastal biodiversity and to promote public use and enjoyment of these resources. The existing categories of State ocean and coastal managed areas along the coast and in State Tidelands have generally evolved on a case-by-case basis through legislative and administrative actions and by public referendum. These designations have not necessarily conformed to any plan designed to establish managed areas in the most effective way or in a manner that ensures that the most representative or unique areas of the ocean and coastal environment are included.

Recommendation A-3. ***Develop a more effective and less complicated statewide system of ocean and coastal managed areas.*** A comprehensive program is needed, with clear criteria for creating, administering, and enforcing management measures in these specially designated areas. Key tools will be the information about marine managed areas provided in Appendix H and the database and GIS mapping project for California marine protected areas being completed by the Sea Grant Extension Program and UC Santa Barbara.

Finding. Some of California's important ocean and coastal fishery stocks are currently reduced and could benefit by additional measures to sustainably manage them. Factors contributing to declines are complex and include the loss of inland and coastal spawning habitat, water pollution, natural events like drought and El Niño, and overfishing. Watersheds and their inland and coastal streams have been adversely affected by increased urbanization, agricultural practices, forestry operations, modification of waterways, and altered water flows. The status of several fish populations is difficult to assess due to the cost and consequent lack of monitoring and assessment information upon which to base sound management decisions. Conflicts between sport and commercial fishing interests, combined with different management systems for the two industries, has limited the ability of these industries to work together to resolve issues. California's marine aquaculture industry holds the potential to supplement the growing demand for fresh seafood and aquatic products, as well as assist with re-stocking programs.

Recommendation A-4. ***Establish additional comprehensive long-term approaches for sustainably managing California's ocean and coastal fishery stocks, with an emphasis on re-building stocks in decline.*** The proposed Ocean Resources Management Coordinating Council can provide an important link between the Legislature, Fish and Game Commission, and commercial and sport fishing interests regarding habitat and resource management issues that affect both industries. Strategies should be developed in close cooperation with these and other interested parties, and should include:

- effective proposals for improving enforcement of fisheries and environmental regulations that will better sustain fishery stocks off the California coast;

- enhanced utilization of expertise located within the Department of Fish and Game,as well as other public, private, and non profit institutions, to assist the Fish and Game Commission and the Legislature in the management of fishery stocks;

- aquatic species restoration and management projects, water temperature and flow control devices, spawning and nursery ground restoration, the use of hatcheries, and biomass producing artificial reefs, while also considering harvest refugia, individual transferable quotas, and other means, to rebuild fishery stocks to sustainable levels;

- improved cataloging of fisheries stock information and plans for generating new information sources, such as independent field research, which does not rely exclusively on fishery catch data; and

- potential use of aquaculture as a supplement for fresh seafood and aquatic products, as well as to assist with re-stocking programs.

Recommendation A-5. ***Establish a comprehensive long-term approach for California marine aquaculture development, identifying opportunities and constraints for this industry which can provide an alternative source of certain seafood products.*** This approach should consider:

- the current permit process for aquaculture operations and how duplication in permitting procedures can be reduced through the use of master CEQA documents or other procedures;

- the water quality standards necessary to support aquaculture operations and the industry's role in achieving and maintaining this level of water quality; and

- the need to encourage new research for supporting aquaculture.

Finding. Efforts to protect and restore marine mammal populations off the California coast have resulted in substantial increases in some of these populations. Increases in both human and marine mammal populations have led to more frequent interactions between marine mammals, the public, and fishermen with both positive and negative results. For example, elephant seals are breeding in large numbers on State Tidelands and mainland locations within a National Seashore, within a State Reserve, and adjacent to private property. Management of these colonies and their interaction with human visitors is excellent in some areas, such as the Año Nuevo Reserve in San Mateo County, and in need of improvement in other areas along the coastline.

Recommendation A-6. ***The State of California should coordinate with federal and local agencies and other interested members of the public and private sectors to address conflicts resulting from new marine mammal population increases.*** Responsibility for managing marine mammals rests with the federal government, although other levels of government, the public and the private

sector can play a role in addressing conflicts. Currently, increased elephant seal breeding on the mainland could provide a logical beginning for this effort. Future issues could include marine mammal and fishery conflicts that occur up and down the entire West Coast of the United States.

Finding. Many of California's coastal habitats, including beaches, dune areas, marshes, mudflats and open waters, have been invaded by non-native plant and animal species. Establishment of these species frequently has substantial negative environmental and economic consequences for resources within California's inland watershed and enclosed coastal waters zones.

Recommendation A-7. ***Support State, national, and international efforts to reduce the importation and establishment of non-native species and study the current effects of these species on California and other West Coast states.*** This is an important issue for the State of California to address as it has substantial ramifications for the health of the inland and enclosed coastal waters of California's ocean ecosystem as well as for the State's flood control and levee systems.

Water Quality

The waters off the Pacific coast are among the richest in biological diversity in United States coastal waters. Water quality plays a critical role in maintaining California's ocean ecosystem, which consists of the inland watershed, enclosed waters, nearshore ocean, and offshore ocean zones. The State of California has established ocean and coastal water quality standards pursuant to State law and responsibilities delegated by the U.S. Environmental Protection Agency. Several new efforts are underway to provide further protection of ocean and coastal water quality as a result of recently enacted legislation and developing partnership approaches.

Long-term maintenance and enhancement of the State's ocean and coastal waters can only be achieved with coordinated efforts to manage California's entire ocean ecosystem. There is growing recognition that the majority of impacts to California's enclosed waters and nearshore ocean zones derive from pollution transported through inland waterways leading to the ocean. However, ocean water quality can be affected by activities within any of the zones.

Finding. Nonpoint source pollution, or polluted runoff, is arguably the State's most significant source of water pollution, impairing estuaries, bays, and nearshore waters. An extensive system to regulate point source pollution has been in place for many years. However, reducing nonpoint source pollution in California requires the renewed commitment and cooperation of federal, State, and local agencies, local land-use interests, the private sector, and the broader public in the complicated task of managing entire watersheds. Implementing both Section 319 of the Clean Water Act and Section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA) will require a long-term financial commitment from both the federal government and the State of California to resolve the State's water quality management needs. The 104th Congress did not provide funding for implementing the requirements of Section 6217 of the CZARA for fiscal year 1996-97. However, the Governor's 1997-98 Budget proposes a $3.8 million Watershed Initiative to assist the Department of Fish and Game, the State Water Resources Control Board, the Department of Conservation, and the Department of Forestry and Fire Protection in efforts to reduce water quality and habitat impacts in key watersheds throughout the State of California.

Recommendation B-1. ***Conduct a thorough inventory and assessment of all ongoing watershed management projects and activities that affect California's ocean ecosystem and use this information to determine priorities for future actions.*** Much of this information exists and some has been compiled for

limited geographic regions, but it has not been compiled in one place for the entire State. The Resources Agency (in coordination with the California Watershed Projects Inventory and other entities) is providing an important start by inventorying existing restoration and monitoring activities, regulatory procedures, and planning processes along the North Coast. The Governor's Watershed Initiative included in the 1997-98 Budget will help ensure that these ongoing efforts can be completed and new efforts initiated where necessary. This inventory approach should be expanded to include information about other watershed planning efforts in Central and Southern California including the Monterey Bay National Marine Sanctuary Water Quality Protection Program, Morro Bay National Estuary Program, and the Santa Monica Bay Restoration Project.

Recommendation B-2. ***Pursue new and innovative approaches to watershed management, such as watershed conservation banks, which maximize results and the efficiency of expenditures.*** Water quality goals may potentially be met more effectively through existing permit processes by allowing municipalities or other permit applicants to mitigate their project impacts at regional conservation banks. This approach could yield greater benefits for water quality at reduced costs by focusing efforts on locations within the region where the most effective improvements in water quality can be achieved.

Recommendation B-3. ***Pursue more technical and financial assistance from the federal government for supporting California's efforts to develop and implement nonpoint pollution strategies pursuant to Section 6217 of the CZARA and Section 319 of the Clean Water Act.*** Solutions to nonpoint source pollution require extensive coordination and cooperation among a wide variety of participants. Federal assistance should be budgeted to support existing State programs to address impaired and threatened water bodies and their adjacent watersheds.

Finding. Guidance provided by technical advisory committees established pursuant to Section 6217 of the CZARA, and endorsed by the State Water Resources Control Board in the report **Initiatives in Nonpoint Source Management*, emphasize the importance of incorporating measures to minimize runoff, protect watershed habitat, and reduce flood risk in project designs.*** Measures to address these concerns early in the permit process will help to minimize project impacts and avoid costly delays.

Recommendation B-4. ***Pursue amendments to the California Environmental Quality Act (CEQA) Guidelines to address water quality issues more comprehensively in the planning stages of development projects.*** Specifically, the CEQA Guidelines should be amended to require the applicant's Environmental Information Form and the lead agency's Environmental Checklist Form to address the potential of non-point pollution; include approved watershed plans as guidance for projects of statewide, regional, or area-wide significance; and address the potential for increased off-site flood risks caused by the development.

Finding. The State of California does not have a system to comprehensively monitor water quality in the inland watershed, enclosed waters, or nearshore ocean zones. Sound water quality management decisions require a solid base of information collected from a variety of sources. Most of the existing monitoring programs are designed to measure the impacts of point source pollutant loads. However, with the exception of limited data provided from the State Mussel Watch, Toxic Substances Monitoring, and

Bay Protection and Toxic Cleanup programs, the majority of California's waterways and small estuarine systems are not monitored by the State on a regular basis. Other monitoring programs exist, yet no overall inventory of these efforts is currently available for the entire California coast. Improved monitoring, or in some cases improved coordination of existing efforts, will be necessary for the State of California to achieve a systematic understanding of nonpoint source pollution and to measure the effect of efforts to reduce this water pollution source.

Recommendation B-5. ***Inventory existing water quality monitoring efforts and use this information to develop a comprehensive water quality monitoring program for coastal streams, bays, estuaries, and nearshore ocean waters.*** For large bays and sections of nearshore coastal waters, regional monitoring programs should be initiated to determine baseline water and sediment quality conditions and to ascertain the relative health of ocean and coastal resources. Monitoring data from federal, state, and local governments, the private sector, citizen groups and non-profit organizations should be made accessible through the CERES at http://ceres.ca.gov. The water quality monitoring program should seek to include:

- mechanisms for providing technical and financial assistance to the State and local governments participating in regional monitoring efforts to monitor water quality within watersheds, enclosed waters, and nearshore ocean waters;
- potential expansion of citizen water quality monitoring efforts, if quality assurance and control issues for data collection can be developed and implemented; and
- a standard protocol for sampling and data collection methods to ensure that the information generated will be useful to water quality decision makers.

Shoreline Erosion

The physical configuration of the California shoreline is dynamic and constantly changing due to coastal erosion and accretion. The rate of this shoreline change is determined by natural processes, such as rough seas, sea-level rise, high tides, nearshore currents, rainfall and runoff, landslides, and earthquakes, as well as human developments that can restrict or accelerate the volume of sand available for beaches. Extensive post-World War II coastal development occurred in California during one of the mildest weather periods in centuries. However, in the last 20 years the State has suffered major public and private property losses from severe erosion in such coastal areas as Marin, Santa Cruz, San Luis Obispo, Santa Barbara, Los Angeles, Orange and San Diego counties as more “normal” historic weather patterns returned. The challenges for the State of California are to better understand its changing coastline and to improve its assessment of how natural and economic resources can be protected.

California's beaches, coastal bluffs, bays, estuaries, and other shoreline features are altered according to geologic conditions, the availability of beach sand, the wave and current energy impinging on the coast, and other physical processes that affect sand movement and retention. A constant supply of sand is necessary for beaches to form and be maintained along this shoreline. Many human activities reduce the supply of sand that reaches the ocean and, in turn, deprive beaches of replenishment. These activities include dam construction, river channelization, and other developments. Lack of sand replenishment creates greater vulnerability for shorelines that have always been subject to varying levels of erosion. In the long-term, sand supply from inland sources may be increased through re-design of existing structures or altering water management practices. However, short-term management of shoreline erosion will likely

continue to focus at the land/sea interface along the California coastline. The Governor's 1997-98 Budget proposes a $3.4 million allocation for the Department of Boating and Waterways to use for beach nourishment and bluff restoration projects in San Diego, Seal Beach, and Santa Cruz.

Finding. The vast majority of the California coastline is actively eroding at a rate that is determined by natural events and by many human alterations to the environment. Recent studies emphasize the economic importance of California's shoreline and the need to manage its resources. A variety of project-specific and regional approaches are addressing the issue of coastal erosion, but the Statewide erosion policy has not been reviewed since 1978.

Recommendation C-1. ***Update and revise the State's 1978 policy guidance document regarding shoreline erosion and maintenance.*** A comprehensive long-term maintenance approach for conserving, enhancing and protecting California beaches should include a thorough evaluation of existing Statewide policy to ensure that the policy reflects the knowledge and experience gained over the past 18 years and to correct out-of-date provisions. This policy should provide clear criteria for State review of, or fiscal participation in, project specific or regional erosion control proposals.

Finding. Much of the data and expertise to address shoreline erosion and management issues is distributed between federal, state, and local governments, the private sector, and the public. Often these assets are underutilized due to inadequate coordination between agencies and other interested parties.

Recommendation C-2. ***Develop planning and regulatory procedures for coastal project applications or regional initiatives concerning shoreline erosion and its management which more efficiently utilizes existing State agency data and expertise.*** Applications for coastal development permits or for regional management options may be reviewed by local governments, the California Coastal Commission, San Francisco Bay Conservation and Development Commission, or California State Lands Commission, depending the location of the development. However, geotechnical expertise also exists within federal agencies, other State agencies (including the Departments of Boating and Waterways, Fish and Game, Parks and Recreation, and Conservation's Division of Mines and Geology) the private sector, and academia.

Finding. Some regional coastal hazards inventory approaches have been developed for coastal communities, although no up-to-date statewide inventory is currently available. This information would be important to all interested parties, particularly local governments who may not have the resources to rapidly assemble data and information.

Recommendation C-3. ***Improve access to data and information regarding California shoreline erosion and hazards such as seismic, slope stability, flood zone, or wave generated erosion.*** A detailed inventory of available data and information could be made available on the Internet through the California Environmental Resources Evaluation System (CERES).

Ports and Harbors

California conducts a tremendous amount of commerce through its port facilities. It is estimated that California transports 184 million tons of cargo and over 3 million passengers by vessel each year, representing one of the world's largest volumes of ocean trade and passenger transport (U.S. Army Corps of Engineers 1993). With its numerous ports and intermodal links, California serves as a critical

thoroughfare for the nation's increasing role in Pacific Rim trade. Trade with Pacific Rim nations accounted for 25% of the Nation's imports and exports in 1980; by 1993, that share of trade was almost 35% of the national total and rising (U.S. Department of Commerce 1994). An economic analysis conducted by the California Research Bureau has found that, in 1992, ports and port-related activities contributed approximately $6 billion to the California economy (California Research Bureau 1993).

The waters within California's ports also provide critical sheltered water habitat for a wide variety of ocean and coastal species that are ecologically important, as well as being important to commercial and recreational fishery interests. For example, the waters within the Ports of Los Angeles and Long Beach include some of the last sheltered subtidal habitat in Southern California, providing nursery habitat for some species and year-round habitat for others. San Francisco Bay ports provide critical habitat for commercial Dungeness crab, Chinook salmon, and Pacific herring. Ocean and coastal resources are affected by port maintenance and development activities because dredge, fill, and other operations within the ports can adversely affect or eliminate habitat. In addition, dredge materials are sometimes proposed for disposal at ocean sites which also can adversely affect a wide variety of ocean and coastal resources.

Finding. California's ports are vital components of national, State, and local economies, generating over $6 billion for the California economy in 1992. Port maintenance and improvement activities, which can be achieved in an environmentally acceptable manner, are important factors in maintaining a growing port industry and a healthy economy. State processes for evaluating proposed projects, associated mitigation measures, and monitoring activities can be complex and time consuming. This is compounded by requirements of the various federal agencies that often have separate processes and standards for development. Improving the efficiency of regulatory and planning procedures is a complex undertaking due to the number of agencies involved and nature of the issues at stake, such as the type of development (dredging, filling, pier construction), degree of habitat impact (wetland, subtidal), and availability and suitability of mitigation options.

Recommendation D-1. ***Develop a wetlands restoration clearinghouse or other appropriate banking mechanism which would enable ports to satisfy mitigation requirements.*** The Governor's 1997-98 budget proposes $575 million for the Coastal Conservancy to establish a Southern California wetlands restoration clearinghouse and another $509,000 for the establishment of a regional wetlands mitigation bank in the San Francisco Bay Area. For the clearinghouse to be established, three essential components must be in place:

- resource and regulatory agencies, the ports, and interested members of the public must support and participate in the design and implementation of the clearinghouse;
- funding must be provided to initially establish the clearinghouse (the Governor's budget proposal has not yet been approved by the Legislature); and
- sites where mitigation credits can be derived and used for compensation must be identified and available.

Finding. Public trust resources, and the revenues derived from use of public trust lands, must be protected so that they continue to support legislatively-mandated public trust uses such as maritime commerce, navigation, fisheries, and recreation. The State's responsibility to protect public trust resources and revenues extends to port and harbor facilities operated on sovereign State lands. Misappropriation of these funds to non public trust uses lessens the ability of ports to support necessary improvements and mitigate impacts to wildlife resources affected by those projects.

Recommendation D-2. ***The State of California should determine if the expenditure of revenues derived from public trust lands located within port facilities is consistent with authorized public trust uses and, if not, to take necessary action to preserve these funds for appropriate trust purposes.*** The legislature has carefully provided protections for public trust resources located throughout the coastal zone, including within its port facilities. These resources, and the revenues they generate, must be protected in accordance with this stewardship responsibility.

Finding. California has not adopted a comprehensive maritime policy that focuses on the full range of issues facing the State's ports and harbors, including intermodal transportation. Other competitors for Pacific Rim trade (Mexico, Canada, Washington, and Oregon) have developed such policies. The potential for new trade with the Pacific Rim over the next 25 years is substantial. However, the intermodal system of channels, wharves, highways, rails, and end-user terminals will need to be improved to provide a seamless and efficient conveyance system so that California ports and harbors can remain competitive for Pacific Rim trade in the years to come.

Recommendation D-3. ***The State should work with the ports and harbors to develop a maritime policy that sets clear goals and objectives for the State's maritime industry.*** This policy should include:

- methods to improve communication and coordination between the maritime industry and State of California,
- new and innovative ways to help fund port maintenance (particularly in small port facilities),
- an economic analysis to better quantify the contribution California's ports and harbors make to the State economy, and
- ways to make the environmental review of, and implementation of mitigation measures for, port development projects more efficient.

Oil, Gas and Other Mineral Resource Extraction

Offshore oil and gas facilities have been operating in California since the late 1800's. Government management and regulation of these operations began with efforts to help solve mineral ownership disputes and to standardize drilling practices. However, environmental problems, brought on in part by rapid growth in the industry throughout this century, led to increased regulation. Commercial mining operations for other mineral resources such as sand, gravel, stone, and salt exist within inland watersheds, enclosed coastal waters and in some nearshore ocean waters along the California coastline. Exploration for these non-petroleum mineral resources offshore have not been extensive. Recreational collecting of mineral resources also occurs in inland watersheds, enclosed waters and nearshore ocean waters.

Finding. Future oil and gas leasing off the California coast would likely cause unacceptable adverse impacts to offshore resources and coastal communities while contributing relatively little to national energy production. A number of factors lead to this conclusion, including visual impacts, navigation risks, drill muds and cuttings disposal practices, air quality impacts, oil spill risks, ecosystem degradation, and uncertain cumulative impacts from existing, approved, proposed, or projected developments.

Recommendation E-1. ***Retain the prohibition on new oil and gas leasing in State Tidelands, and***

continue to oppose leasing activities on the federal Outer Continental Shelf offshore California. This is, and should remain, the policy of the State of California unless new technologies or other methods are further developed to reduce to acceptable levels the cumulative impacts and risks associated with offshore drilling.

Finding. The cumulative impacts of offshore oil and gas operations for existing or future development within currently leased areas of State Tidelands and the Outer Continental Shelf are being studied. The oil and gas industry, State of California and Department of the Interior's Minerals Management Service have not produced sufficient information regarding the cumulative impacts of offshore oil and gas development. New leasing is currently not allowed in State or federal waters offshore California, yet new developments can still be proposed on existing State or federal leases. A substantial amount of undeveloped leased acreage exists along the California coast and in federal waters within the northern Santa Maria Basin and Santa Barbara Channel located offshore San Luis Obispo and Santa Barbara counties. The Governor recently signed Assembly Bill 1431 (Firestone; Chapter 997, Stats. 1996) which will provide local governments with approved local coastal programs up to $3.5 million annually from federal oil and gas revenues for addressing ocean and coastal resource management issues. The statute provides that first priority will be to fund projects that mitigate the impacts of offshore energy development.

Recommendation E-2. The State of California should continue to cooperate with federal and local governments, the oil and gas industry, and public interest groups to evaluate existing and future onshore constraints to producing oil and gas resources from existing leases in State Tidelands and the Outer Continental Shelf (OCS). This evaluation, titled *California Offshore Oil and Gas Energy Resources Study* (COOGER), is focusing on development from currently leased oil and gas tracts off the coastlines of San Luis Obispo, Santa Barbara, and Ventura counties, and is intended to provide a common base of information for future decisions regarding oil and gas activities within existing leased areas.

Finding. The State of California has developed programs to help prevent oil spills and respond to those that do occur, but each major spill response can be used to identify methods for improving such programs. The Office of Oil Spill Prevention and Response (OSPR), and the authorities created by the Oil Spill Prevention Act of 1990, are establishing new and innovative approaches to oil spill prevention and response in California. Investigations by OSPR committees and their staff are identifying the current state of oil spill prevention measures and response preparedness through the legislatively-mandated Coastal Protection Review, while work is ongoing to identify and analyze the legal and operational roles of most agencies involved with oil spill prevention and response.

Recommendation E-3. The State of California should place high priority on implementing measures necessary to provide best achievable protection from oil spills. Specifically, the State should consider the recommendations from the first OSPR Coastal Protection Review. This will help ensure that the best achievable protection measures are implemented to prevent and respond to oil spills along the California coast. Some of the recommendations could be implemented immediately, while others may require additional time and analysis.

Finding. Many offshore oil and gas platforms are reaching the end of either their design or economic producing life and decisions must be made regarding the most appropriate methods to rehabilitate, use, or dispose of these facilities. The current policies and regulatory procedures regarding offshore platforms proposed for abandonment require that production sites be restored to pre-project conditions. Some interest groups have advocated the use of abandoned platform facilities as artificial reefs, while others have indicated substantial opposition to such proposals. The impacts of different abandonment alternatives have not been evaluated through a Programmatic Environmental Impact Report/Statement (EIR/S) process, but this information would be extremely helpful for understanding the multiple alternatives and could expedite future decisions regarding platform abandonments.

Recommendation E-4. ***The State, in coordination with the U.S. Minerals Management Service and other federal agencies, should prepare a Programmatic EIR/S to evaluate the impacts associated with offshore oil and gas platform abandonment alternatives.*** The EIR/S should include evaluations of totally removing facilities, leaving all or some portions of the facilities in place for use as habitat, assuming the cost and transfer of title and liability, effects on biological productivity, and suitability of metal oil platform jackets for creating habitat.

Vessel Traffic Safety

The waters offshore California and within its ports and connected waterways provide for shipping by U.S. and foreign flag tanker, dry cargo, and passenger ships, as well as barges. These waters are also used by other watercraft, such as sport and commercial fishing vessels and recreational craft. While the vast majority of vessel transits are conducted safely, a number of unfortunate shipping mishaps and near misses in recent years have focused national attention on the issue of vessel traffic safety.

Substantial volumes of petroleum products are transported off the California coast from Alaska, from foreign countries, and between California production sources. The Los Angeles/Long Beach and San Francisco Bay harbors include some of the highest volume oil importing ports and refining facilities in the United States. Unfortunately, collisions or ship groundings off the California coast, or within its congested ports, have the potential to occur as a result of these operations.

Finding. Vessel traffic safety off the California coast remains a major policy concern for California. Significant progress has been made in improving vessel traffic safety both offshore California and within its ports, but the State must continue to identify and evaluate appropriate government and private sector solutions or methods for reducing vessel traffic hazards. Recommendations identified during the Office of Oil Spill Prevention and Response's first Coastal Protection Review will provide guidance for reducing hazards from vessel operations offshore and within California ports.

Recommendation F-1. ***Implement the measures necessary to further reduce vessel traffic hazards within port areas or off the coast.*** Specifically, the State should:

- consider the vessel traffic safety recommendations resulting from the first Coastal Protection Review, including expanding voluntary agreements for tankers and barges to transit the coast a safe distance from shore, working to establish permanent international routes to minimize spill threats, considering amendments to the Oil Spill Prevention and Response Act of 1990 to include the regulation of all ships greater than 300 gross tons, improving aids to navigation and vessel inspection procedures, and expanding the coverage of vessel traffic information systems; and

- urge the U.S. Coast Guard and the Office of Oil Spill Prevention and Response to jointly sponsor public workshops (in cooperation with other State agencies, industry, and public interest groups) to explore the need for additional measures for enhancing vessel traffic safety. If such measures are deemed necessary, State and federal authorities should work with all interested parties to implement necessary safety measures.

Finding. Oil lightering operations are being conducted on an experimental basis over 90 miles off the California coast in international waters. These operations may continue on a long-term basis and be expanded by the current operator or other operators. While common world-wide, this type of offshore oil transfer has not previously been practiced off the California coast for long periods of time with such large volumes of oil.

Recommendation F-2. ***The Office of Oil Spill Prevention and Response, in cooperation with the U.S. Coast Guard, other State agencies, and interested parties, should evaluate the safety of lightering operations being conducted on the high seas off the California coast.*** If safety concerns are identified with existing or expanded operations, the State should urge the U.S. Coast Guard, pursuant to the Deep Water Port Act Amendments of 1984 and the Oil Pollution Act of 1990, to designate lightering zones that represent the safest options for long-term operations.

Tourism and Recreation

California's coast is a major destination for visitors on both business and leisure travel, with an international reputation for beautiful sandy beaches, rocky intertidal areas, and massive coastal headlands creating opportunities for a wide range of coastal experiences. This coastline also attracts people for numerous and varied recreational activities. Economically it is in the State's interest to encourage ocean and coastal tourism and recreational activities, but the State must ensure that environmental protection goals are not compromised and that conflicts between user groups are managed properly.

The California Trade and Commerce Agency's Division of Tourism estimates that the travel industry and associated recreation in California generates approximately $55.2 billion annually (6.5% of the gross state product) and supports almost 700,000 jobs statewide, making California first in the nation for travel earnings, domestic visitors and overseas visitors. The California Research Bureau prepared an economic analysis in support of this Agenda which determined that ocean and coastal tourism, and associated recreation, contributed $9.9 billion to the State's economy in 1992, making it the largest component of the seven ocean-dependent industries studied (see Appendix B). A survey by the California Department of Parks and Recreation concluded that in 1991 almost 70% of Californians had participated in beach activities an average of 21 days, surpassed in participants only by visiting museums/historic sites and recreational walking. They also found that 25% of Californians had participated in saltwater fishing an average of 15 days each. Not only is there an increasing number of traditional ocean and coastal recreation enthusiasts, but also a surge in the types of activities in which people can participate.

Finding. California's ocean-dependent tourism and recreation industries have developed as a result of the State's international reputation for striking coastal features, clean ocean waters, spectacular views, diversity of marine species, and numerous ocean-based recreational opportunities. As human populations continue to expand, pressures on ocean and coastal resources will increase. California's ocean and coastal resources must serve the needs not only of Californians, but also visitors from around the world. Management strategies should help stimulate sustainable ocean and coastal tourism and recreation, but they must also address impacts to California's ocean ecosystem.

Recommendation G-1. ***Improve the potential for sustainable ocean and coastal tourism and recreation by including an ocean and coastal focus in the annual marketing plan developed by the Trade and Commerce Agency's Division of Tourism.*** This focus should include methods to further quantify the economic contributions of ocean and coastal tourism and recreation to the California economy, as well as provide a program to promote environmentally sound and sustainable tourism and recreation.

Finding. Infrastructure to support ocean and coastal tourism and recreation, such as parking facilities and public transportation, restrooms, and formal trails, are in many cases in need of expansion, greater maintenance, and repair. Satisfaction of tourists and recreational users can be degraded as visitor carrying capacities of destinations are exceeded. Almost 25% of California's 1,100 mile coastline is managed through the California Department of Parks and Recreation, while many of the remaining public lands are managed by local or regional government agencies. With limited government funds having to meet ever increasing needs in California, facilities maintenance or repair work often remains unfunded. However, these facilities are inextricably linked to residents' ability to enjoy public resources, California's significant tourism and recreation industries, and maintaining a healthy ocean ecosystem.

Recommendation G-2. ***Identify public infrastructure along the California coastline in greatest need of maintenance, repair or protection from additional tourism and recreational activities, and prioritize necessary actions.*** This effort will require that local, regional, State and federal government agencies work with private industry and the public to identify opportunities for joint projects and activities, maximizing the effectiveness of limited government funds.

Finding. Conflicts between different ocean and coastal recreational activities and commercial operations appear to be increasing in congested harbors, high use open ocean areas, and along the coast. Examples of conflicts include those between recreational craft (personal watercraft, kayaks, wind surfers, rowers) and commercial vessels (tankers, container ships, and ferries), as well as between more unusual activities such as attracting sharks for viewing by paying customers in areas frequented by other users. Problems are now being addressed on a case-by-case basis by different levels of government and the private sector, with decision-makers often having to rely upon anecdotal evidence to determine the severity of an issue. Regional or statewide solutions may need to be crafted to address some of the more serious conflicts and safety issues.

Recommendation G-3. ***Identify ocean and coastal recreational conflicts and safety issues of statewide significance and work with industry, public interest and user groups to identify potential solutions.*** Examples of ocean and coastal tourism or recreation conflicts and safety issues include personal watercraft use, attracting sharks for viewing, and certain recreational boating activities. This effort would be appropriate for the proposed Ocean Resources Management Coordinating Council (see Chapter 6).

Education, Research and Technology

Formal curricula in ocean sciences now exist for children in Kindergarten through Grade 12 and for students within California's colleges and universities. In addition to educational programs, ocean research is conducted through a variety of programs at the college and university level. The California Sea Grant Program provides valuable program guidance and funding for a variety of ocean research programs throughout the State. The program encourages and supports scientifically sound research that addresses

key ocean and/or coastal resource management, policy, science, or engineering issues that face the State of California now or in the reasonably foreseeable future.

Exciting challenges await the research community with the need to better understand the ocean ecosystem and the vast potential for developing new and innovative ocean technologies. This information and technology development will play an important role in achieving the ocean stewardship goal identified in this Agenda, and can help achieve economic goals by providing the technical basis for encouraging environmentally sound, sustainable, and economically beneficial ocean resource development activities. Key to this success is making the results of research and technology development activities readily available. Ideally, California's natural resource managers should have at their immediate disposal the best available data and information for resource management, planning, and regulatory efforts. In reality these managers are often forced to develop plans or implement regulatory policies based on generalized, incomplete, and sometimes inconsistent information. Technologies currently in place or being developed are revolutionizing the way we gather and analyze information about California's natural resources.

Finding. California has high quality ocean and coastal education curricula and programs, but lacks a central directory to identify them. Educators and students frequently have difficulty identifying existing or developing curricula and organizations that focus on ocean or coastal education. Teacher training and enhancement opportunities in marine education also abound. Although excellent guides have been developed to distribute this information, a centralized directory available through the Internet would provide even greater access.

Recommendation H-1. ***Develop and make available through the Internet a central directory of ocean and coastal educational organizations, educational resources, and teacher training and enhancement opportunities in California.*** This directory should include, at a minimum, curricula and programs available for K-12, college and university programs, and the resources available in each program. The directory would need to be updated regularly and should be made accessible through the California Environmental Resources Evaluation System. Such a directory could also be used to identify programs which should be enhanced or expanded and where new ones should be developed.

Finding. Although California's colleges and universities have substantial ocean science research and education capacities, they lack an ocean and coastal policy graduate education program. California has had to reconcile major policy questions over the years concerning a variety of ocean and coastal development proposals and marine resource management disputes. Ocean policy graduate education programs currently exist in other states and, although some courses are offered at California institutions, a full interdisciplinary program at the graduate level has yet to be established.

Recommendation H-2. ***Develop an ocean and coastal policy graduate education program within California's private or public colleges or university systems.*** Developing such a program will help maintain California as a leader in ocean policy and management. California has extensive expertise in the policy, scientific, and legal aspects of ocean and coastal management which could be used to develop one or more such programs within the State.

Finding. Ocean resource management and policy-making requires scientific data regarding habitat functions and values, species diversity, and other complex physical, biological, and chemical processes which affect the health of California's ocean ecosystem. Understanding these and human-induced factors which affect ocean ecosystem health is fundamental to the process of developing sustainable ocean resource management policies and for guiding the development of new technologies. Limited State funds must be directed toward research projects which improve our understanding of these complex issues. California lacks a comprehensive listing of current or recent ocean and coastal research activities either

being conducted by or funded through the State of California, or through private funding. This information is needed to determine what research categories have received priority in the recent past, and where limited State funds should be spent in the future.

Recommendation H-3. ***The RASGAP, in cooperation with the recommended Ocean Resources Management Coordinating Council (see Chapter 6), should annually prepare a list of the highest priority ocean and coastal research needs for State funds.*** Proposed research projects which are consistent with this priority list will be given substantially greater consideration for State funding. To provide the most accurate and timely information on which to base this prioritization, a system must be established for collecting, categorizing and analyzing recent, current and future ocean and coastal research activities pertinent to California, focusing initially on State-funded research. Some of this work has been completed by the Northwest and Southwest Regional Marine Research Boards for marine water quality and ecosystem health research conducted during the early 1990s. This information base should be expanded upon for a more complete inventory and could be conducted in cooperation with the Regional Marine Research Boards, if federal funding for these programs was continued.

Finding. California has been a leader in developing ocean technologies by proactively seeking and promoting their research and development. Much of this research and technology development was the result of expenditures by the military and offshore oil and gas industry, both of which have substantially reduced expenditures on such research. New developments in ocean-related energy generation and storage, low-polluting energy sources, biotechnology, shipping safety, submersible technology, and communications can provide substantial benefits to society if fully developed. These developments can be stimulated through joint federal, state, and industry partnerships.

Recommendation H-4. ***Promote continuing research into emerging ocean technologies and develop the government/private sector partnerships to carry out these research initiatives.*** The California Sea Grant Program can provide a start, but new initiatives with substantially higher levels of public and private investment should be explored to stimulate new technology research. In addition, ocean information and technology not previously available to the public is now being released by the U.S. Navy and other government and private sector organizations, and could provide valuable data for new technological developments.

Finding. California will benefit substantially by developing and using innovative technical approaches to increase our understanding of California's ocean ecosystem, as well as developing methods to display, analyze, and communicate this information. These technical innovations will improve the efficiency and effectiveness of California's ocean ecosystem management, especially if pursued in a coordinated and strategic fashion with other states, the federal government and private industry. The pilot geographic information system (GIS) being developed by the California Department of Fish and Game, combined with other GIS development efforts, will demonstrate many applications of this technology for ocean management efforts.

Recommendation H-5. ***In cooperation with the State Office of Information Technology, the CERES program should complete a comprehensive information technology strategy for natural resource data collection, storage and analysis.*** Developing a statewide ocean and coastal resources GIS should be a top priority in such a strategy, as it will provide an important tool for ocean

and coastal resource management.

Desalination - Producing Potable Water

Desalination, the process of removing salt, other minerals, or chemical compounds from impure water, has provided a limited source of potable water for some of California's communities. The issue for ocean resource managers is the desalination of ocean water for delivering potable water to coastal and island communities whose groundwater supplies have been reduced or eliminated. Water shortages may be the result of events such as droughts, contamination, salt water intrusion, or limited water sources, even after water conservation methods have been implemented. Thus, desalination has received increasing attention in drought years when water supplies become greatly threatened or diminished. In above-average water years, permit requests for desalination facilities are frequently withdrawn. The current drought-response approach to desalination forces government agencies to conduct expedited review of these facilities during scarce water periods. Currently, neither the State nor most local governments have long-term contingency plans regarding use and potential environmental impacts of desalination plants for potable water production. However, the Governor Wilson's 1992 California Water Policy - A Strategy for the Future provides that California is committed to helping local agencies with permits and technical assistance to advance the use of desalting where it is cost effective.

Finding. Desalination of seawater can be an important technology for ensuring a reliable coastal water supply; however, the conditions under which desalination is appropriate must be carefully identified and considered. Desalination has produced a limited source of water for some communities along the California coast, but due to its high costs and potentially adverse impacts on marine waters, desalination should be considered only after all other water sources, conservation measures, and long-term economic ramifications have been evaluated. The Governor's 1992 Water Policy provides that the State will help local agencies with permits and technical assistance to advance the use of desalting where it is cost effective.

Recommendation 5I-1. ***Establish criteria for determining when desalination of seawater is appropriate for supplying water, and when alternative water supply options are preferable.*** Water planning and regulatory agencies, and the private sector should work together to establish contingencies for developing this technology.

Finding. Desalination research sponsored by industry and the federal government in the past resulted in significant technical improvements for converting seawater into potable water. These improvements, especially to reverse osmosis membranes, have reduced the cost of this technology. However, desalination remains a relatively expensive potable water source and the environmental impacts are a continued source of concern. Although the California Ocean Plan Triennial Review and Workplan (October 22, 1992) identifies the need for additional research and policy evaluation of desalination alternatives, funding limitations in California have not allowed such actions to be implemented. Recent federal legislation (Simon; SB 811) has authorized up to $180 million for a six-year period to support desalination research, demonstration, and development projects.

Recommendation 5I-2. ***The State of California should encourage the federal government and industry to help conduct and/or fund additional research on minimizing the costs and environmental impacts associated with the use of desalination to obtain freshwater supplies from saltwater.*** This research could be conducted by the federal government, the State Water Resources Control Board and the Department of Water Resources, California Sea Grant programs, California State University System, University of California, public research institutes such as the Southern California Coastal Water

Research Project, or private industry. Research should investigate key questions such as determining the best model for predicting brine plume impacts, monitoring those impacts on marine

organisms, determining whether water quality objectives should be established for brine waste discharges, and addressing engineering/economic feasibility issues regarding this technology.

ACHIEVING GOALS: ACCOUNTABILITY AND COORDINATION

Attaining the goals identified in this Agenda is complicated by multiple agencies of jurisdiction, each with respective mandates and responsibilities that are sometimes conflicting or uncoordinated, and other times duplicative. What is self-evident to even a casual observer is the need to simplify and bring more cohesiveness to ocean resource management. This task is best accomplished by those entities involved in the day-to-day management of California's ocean resources and by establishing a process that effectively brings the most important and precedent-setting policy issues to the attention of the State's top policy-makers.

Accordingly, effective ocean resource management and implementation of the priorities identified in this Agenda would be enhanced by two initiatives: (1) bringing together the many State agencies with ocean and coastal resource management responsibilities to increase coordination efforts and to provide a forum to help resolve issues at the State level and (2) establishing a process for cooperating with and soliciting advice from other levels of government, the public, and the private sector.

Recommendation: ***Convene a State cabinet-level ocean resources management coordinating council, composed of agency and department directors with ocean resource management responsibilities, to help integrate the multiple agencies and programs of ocean and coastal jurisdiction.*** The effectiveness of this council will depend on its ability to work with public and private organizations to identify and develop solutions to ocean and coastal resource management issues of concern to the State of California.

This council would provide a cabinet-level forum to coordinate inter-agency, multi-state, and international approaches to California ocean resource management issues. It should meet on a regular basis and seek the advice and recommendations of the interested public, private, or governmental parties ("stakeholders") who work with these issues on a regular basis, but final decision-making authority should reside with the inter-agency members and their respective departments, boards and commissions. This process will provide the regular communication link necessary for these agencies to form a cohesive public/private ocean management approach for California.

Success of the council will depend, in part, upon the availability of local forums, as well as the participation of member agencies and departments in achieving consensus-based solutions. A State coordinating council will be a critical first step to addressing the issues raised in the Agenda. However, long range success depends on a commitment by the federal agencies of jurisdiction, local governments, and affected stakeholders to participate in a like manner. Ultimately, true coordination and integration of this public policy will require the full participation of all stakeholders within the council.